On the Synthesis of the β-(2-thienyl) Alanine 62-1-17/29

ASSOCIATION: Institute of Organic Chemistry imeni N. D. Zelinskiy, AS USSR (Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR)

SUBMITTED: July 12, 1957

AVAILABLE: Library of Congress

1. β-(2-Tienyl) alanine-Synthesis 2. Alanines-Synthesis

Card 2/2

FABRICHNYY, B.P.

79-1-45/63

AUTHORS: Gol'dfarb, Ya. L. , Fabrichnyy, B. P. , Shalavina, I. F

TITLE: The Synthesis of Amino Acids of the Aliphatic Series From Thiophene Derivatives (Sintez aminokislot alifaticheskogo ryada iz proizvodnykh tiofena) II. The Synthesis of β-Amino Acids (II. Sintez β-Aminokislot)

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol28, Nr 1, pp.213-222(USSR)

ABSTRACT: In recent years new data were published in periodicals on the investigation of β-amino acids, as biologically active compounds, of whom earlier little notice had been taken. Thiophene as initial product (references 4 and 5) began to play an important part. The way from thiophene and its homologues to amino acids is illustrated by the formulae (I), (II) and (III). The second stage of this process consists of the condensation of the aldehyde, which can easily be produced, with malonic acid and ammonia to β-amino acid according to V. M. Rodionov. The final stage is brought about by the reducing desulphurization with the aid of nickel. The

Card 1/3

The Synthesis of Amino Acids of the Aliphatic Series From Thiophene Derivatives. II. The Synthesis of β-Amino Acids

given synthesis of β-amino acids contains all possibilities which were characterized by the authors in papers devoted to the methods of synthesis of amino acids of another type. From the above-mentioned scheme follows that the acid of a ramified structure must form when ever the substituent or the aldehyde group are in positions 3 and 4, or when the substituent in position 5 has a ramified structure. Thus the following compounds were obtained from the corresponding 2-thiophene-aldehydes according to Rodionov's method: β-(2-thienyl)-β-aminopropionic-, β-(5-methyl-2-thienyl)-β-aminopropionic-, β-(5--ethyl-2-thienyl)-β-aminopropionic and β-(5-tert-butyl-2--thienyl)-β-aminopropionic acid. By the hydrogenolysis of these amino acids of the thiophene series the authors synthesized β-amino-n-heptyl-, β-amino-n-capronic, β-amino-n-pelargonic acid. By hydrogenolysis of the acetyl derivatives of β-(5-ethyl-2-thienyl)-β-aminopropionic and β-(5-tert-butyl--2-thienyl)-β-aminopropionic acid the acetyl derivatives of β-amino-n-pelargonic and ϑ,ϑ-dimethyl-amino-n-pelargonic acid respectively are obtained. By saponification of the acc-

Card 2/3 tyl derivative of ϑ,ϑ-dimethyl-β-aminopelargonic acid

79-1-45/63

The Synthesis of Amino Acids of the Aliphatic Series From Thiophene Derivatives. II. The Synthesis of β-Amino Acids

with hydrochloric acid the hydrochloride of ϑ,ϑ-dimethyl--β-aminopropionic acid was obtained; by neutralization free amino acid was liberated. There are 19 references, 10 of which are Slavic.

ASSOCIATION: Institute for Organic Chemistry AN USSR (Institut organicheskoy khimii Akademii nauk SSSR)

SUBMITTED: December 15, 1956

AVAILABLE: Library of Congress

Card 3/3

1. Chemistry 2. Amino acids-Synthesis 3. Aliphatic compounds 4. Thiophene

FABRICHNYY, B.P.; SHALAVINA, I.F.; GOL'DFARB, Ya.L.

Synthesis of aliphatic amino acids from thiphene derivatives. Part 3: Synthesis of ω-amino acids. Zhur.ob.khim. 28 no.9: 2520-2530 S '58. (MIRA 11:11)

1. Institut organicheskoy khimii AN SSSR.
(Amino acids)

5 (3)

AUTHORS: Gol'dfarb, Ya. L., Fabrichnyy, B. P., Shalavina, I. F.

SOV/79-29-3-30/61

TITLE: Synthesis of the Aliphatic Amino Acids From the Thiophene Derivatives (Sintez alifaticheskikh aminokislot iz proizvodnykh tiofena). IV. 5-Acyl-(2-thienyl)-alkanic Acids as Initial Products for the Synthesis of the Aliphatic Amino Acids (IV. 5-Atsil(2-tiyenil)-alkanovyye kisloty kak iskhodnyye veshchestva dlya polucheniya alifaticheskikh aminokislot)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 3, pp 891-897 (USSR)

ABSTRACT: There are comparatively little data available on the highest aliphatic amino acids of the structure $RCH(NH_2)(CH_2)_nCOOH$, where R = alkyl, although they are interesting as polycondensation objects (Ref 1) or as derivatives for physiological investigations (Ref 2). Their general method of synthesis is so far unknown; for the synthesis of some of these amino acids natural products were used; thus, for instance, the 10-amino-undecanic acid (Refs 1,2) was obtained from

Card 1/3

undecylenic acid which is formed on the pyrogenetic cleavage of castor oil. The method previously suggested by the authors which is based on the reductive desulfurization (hydrogenolysis) of the oximino and amino acids of the thiophene series (Refs 3-8) yields aliphatic amino acids of any kind. The thiophene-keto acids previously used by the authors permit only the synthesis of such amino acids in which the carbon atom, as carrier of the amino group, is combined with an alkyl which contains not less than 4 carbons. This restriction was partly removed with the oximes of the aldehyde acids as initial products (Ref 8). In the present paper the synthesis of the highest amino acids of the mentioned type from the oximes of the keto acid (II) according to the given scheme is described. In this way the highest aliphatic amino acids can be synthesized which have the amino group in the required position to the carboxyl and an alkyl radical at the carbon atom combined with the amino group, with the necessary number of carbon atoms. The experimental part gives details on the carrying out of the reaction scheme mentioned. By the

Synthesis of the Aliphatic Amino Acids From the Thiophene Derivatives. IV. 5-Acyl-(2-thienyl)-alkanic Acids as Initial Products for the Synthesis of the Aliphatic Amino Acids

SOV/79-29-3-30/61

hydrogenolysis of the oximes which were obtained from the thiophene keto acids the following acids were synthesized by means of the skeleton-nickel catalyst: The 10-amino undecanic, 11-aminolauric, 9-amino undecanic, and 11-amino tridecanic acid. There are 3 tables and 8 references, 6 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii Akademii nauk SSSR (Institute of Organic Chemistry of the Academy of Sciences, USSR)

SUBMITTED: January 20, 1958

Card 3/3

5 (3)

AUTHORS: Gol'dfarb, Ya. L., Polonskaya, M. M., Fabrichnyy, B. P., Shalavina, J. F. SOV/20-126-1-23/62

TITLE: Reductive Acetylation of Thiophene Series Nitrocompounds in the Presence of Skeleton Nickel (Vosstanovitel'noye atsetilirovaniye nitrosoyedineniy ryada tiofena v prisutsvii skeletnego nikelya)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 1, pp 86 - 89 (USSR)

ABSTRACT: The first and the third author proved earlier (Ref 1) that δ-amino-valeric acid is produced with a small yield by the effect of skeleton nickel (Ni_{sk}) on the 5-nitro-2-thiophene-carboxylic acid (I). On the strength of reference 2 the authors tried to increase this yield by the application of acetic acid anhydride as medium. However, they succeeded only in isolating the acetyl-amino acid (II) from the reaction mixture. The recognition that this acid produces (III) in the case of the effect of Ni_{sk} in the aqueous medium (Ref 3) led to the conclusion that the acetic acid anhydride deactivates Ni_{sk}. This conclusion was confirmed in the case of two other examples. Thus the react-

Card 1/3

ion of Ni_{sk} with thiophene-nitroderivatives remains under the mentioned conditions in the production stage of an acetyl-amino compound. That is to say, the result of the process is a reductive acetylation. Although the effect of the solvent upon the reducing properties of Ni_{sk} in the case of the hydrogenation of the thiophene derivatives has already been published (Ref 4) the authors could not find data concerning the capacity of the acetic acid of suppressing the desulfurizing function of Ni_{sk} in such cases. The authors found contradictions in the publications concerning the properties of the 5-acetyl-amino-2-thiophene-carboxylic acid (II) (Refs 6-11) when they identified the latter. Since the melting point 230-232° of the acetyl-amino acid (with a II-structure as is assumed) produced by the authors did not agree with that of the publications (272°) they determined the position of the acetyl-amino group in the nucleus. Thus the structure II was confirmed. On the strength of these data the authors doubted whether the experi-

mental results of reference 8 were right. The authors then repeated the experiment of reference 8 and obtained acid potassium tartarate with a melting point 273-274°. The authors assume that Campaigne and Archer (Ref 8) erroneously regarded this acid salt as the acetyl-amino acid (II). There are 18 references, 3 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences, USSR)

PRESENTED: February 25, 1959, by B. A. Kazanskiy, Academician

SUBMITTED: February 16, 1959

FABRICHNYY, B. P.. (Prof.)

"A New Principle of Synthesis of Amino Acids."

report to be submitted for the Symposium on the Chemistry of Natural Products, Intl. Union of Pure and Applied Chem. (IUPAC), Melbourne, Canberra, and Sydney, Australia, 15-25 Aug 60

Inst. of Organic Chemistry im N. D. Zelinskiy, Moscow

FABRICHNYY, B.P.; SHALAVINA, I.F.; GOL'DFARB, Ya. L.

Beckmann rearrangement of thiophenocycloalkanone oximes.
Zhur. ob. khim. 31 no.4:1244-1253 Ap '61. (MIRA 14:4)

1. Institut organicheskoy khimii Akademii nauk SSSR imeni N. D. Zelinskogo.
(Oximes) (Cyclohexanone)(Cycloheptanone)
(Beckmann rearrangment)

GOL'DFARB, Ya.L.; FABRICHNYY, B.P.; SHALAVINA, I.F.

Synthesis of aliphatic amino acids from thiophene derivaties. Part 6: Preparation of ε - and γ-amino acids and C-substituted lactams. Zhur.ob.khim. 31 no.6:2057-2064 Je '61. (MIRA 14:6)

1. Institut organicheskoy khimii imeni N.D.Zelinskogo AN SSSR.
(Amino acids) (Lactams)

FABRICHNYY, B.P.; KRASNYANSKAYA, E.A.; DOL'DFARB, Ya.L.

Preparation of higher aliphatic α-amino acids from 2-phenyl-4-(thenylidene)-5-oxazolines. Dokl. AN SSSR 143 no.6:1370-1373 Ap '62. (MIRA 15:4)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR. Predstavleno akademikom B.A.Kazanskim.

(Amino acids) (Oxazoline)

S/190/62/004/012/008/015
B101/B186

AUTHORS: Volokhina, A. V., Fabrichnyy, B. P., Shalavina, I. F., Gol'dfarb, Ya. L.

TITLE: Polymerization of C-ethyl and C-propyl substituted enantholactams

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 12, 1962, 1829-1832

TEXT: The susceptibility of ζ-ethyl-ξ-enantholactam and of ζ-n-propyl-ξ-enantholactam to polymerization was investigated. Synthesis: The lactam of δ-(3-aminothienyl-2)-valeric acid, or the lactam of δ-(3-amino-5-methyl-thienyl-2)-valeric acid was obtained from 2',3'-thiopheno-1,2-cyclo-heptan-3-one oxime or from 5'-methyl-2',3'-thiopheno-1,2-cycloheptan-3-one oxime by Beckmann rearrangement in the presence of benzene sulfochloride. At the same time the sulfur was eliminated with skeleton nickel, and the double bonds of the thiophene ring were hydrogenated. The polymerization was carried out at 220-280°C with 2% H_2O as catalyst in N_2 atmosphere. Solid, glass-like substances with m.p. 170°C were obtained, which can be

Card 1/2

pulled out to filaments at 175°C and from the hot alcoholic solution of which films can be formed. The polymer yield was more than 99%, the intrinsic viscosity reached 0.50 for the ethyl derivative, and 0.30 for the propyl derivative. Conclusion: In contrast to the seven-membered caprolactam ring, the polymerization susceptibility of the eight-membered enantholactam ring is not affected by substituents.. There is 1 figure. The most important English-language reference is: H. K. Hall, J. Amer. Chem. Soc., 80, 6404, 1958.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo volokna (All-Union Scientific Research Institute of Synthetic Fibers); Institut organicheskoy khimii im. N. D. Zelinskogo AN USSR (Institute of Organic Chemistry imeni N.D.Zelinskiy AS USSR)

SUBMITTED: July 7, 1961

VOLOKHINA, A.V.; FABRICHNYY, B.P.; SHALAVINA, I.F.; GOL'DFARB, Ya.L.

Polymerization involving ethyl- and propyl-substituted enantholactams. Vysokom. soed. 4 no.12:1829-1832 D '62. (MIRA 15:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo volokna i Institut organicheskoy khimii imeni N.D. Zelinskogo AN SSSR.

(Azicinone) (Polymerization)

GOL'DFARB, Ya.L.; FABRICHNYY, B.P.; ROGOVIK, V.I.

Syntheses based on aldehydes of the thiophene series. Part 1. Synthesis of some aliphatic hydroxy amino acids from thiophene derivatives. Izv. AN SSSR. Ser. khim. no.12:2172-2177 D '63. (MIRA 17:1)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.

FABRICHNYY, B.P.; KRASNYANSKAYA, E.A.; SHALAVINA, I.F.; GOL'DFARB, Ya.L.

Synthesis of aliphatic amino acids from thiophene derivatives. Part 7: Preparation of some higher α-amino acids from 2-phenyl-4-thenyliden-5-oxazolones. Zhur. ob. khim. 33 no.8:2697-2702 Ag '63. (MIRA 16:11)

1. Institut organicheskoy khimii imeni N.D. Zelinskogo AN SSSR.

FABRICHNIY, B. P.; GOL'DFARB, Yakov Lazarevich; SHALAVINA, I. F.

"On the synthesis of the 2,3,4,5-tetradhydrobiotin."

Report presented for the 3rd Intl. Symposium on the Chemistry of Natural Products (IUPAC), Kyoto, Japan, 12-18 April 1964.

FABRICHNYY, B.P.; SHALAVINA, I.F.; GOL'DFARB, Ya.L.

Synthesis of aliphatic amino acids from thiophene derivatives. Part 8: Influence of certain factors on the product yield in the reduction desulfurization stage. Zhur. ob. khim. 34 no.12:3878-3887 D '64 (MIRA 18:1)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.

EWT(m)/EPF(c)/EWP(j)/T Pc-4/Pr-4 RM S/0190/65/007/003/0485/0490

ACCESSION NR: AP5008374

AUTHORS: Salamatina, O. B.; Bonetskaya, A. K.; Skuratov, S. M.; Fabrichnyy, B. P.; Shalavina, I. F.; Gol'dfarb, Ya. L.

TITLE: Kinetics and thermal effect of polymerization of some C-alkyl substituted lactams

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 3, 1965, 485-490

TOPIC TAGS: alkylation, polymerization, kinetics, thermal effect

ABSTRACT: A study was made of the kinetics of polymerization of 5-CH_3-, 7CH_3-, 7-C_2H_5- and 7-C_3H_7-caprolactams and 6-C_2H_5- and 8C_3H_7-enantholactams in the presence of water alone and with different amounts of phosphoric acid at 260C. The 7-C_3H_7-caprolactam was synthesized. The others were obtained from VNIIV. For polymerization in water it was found that the process is autocatalytic for C-alkyl substituted and unsubstituted lactams alike, that the substitution in a lactam molecule sharply lowers the reaction rate, that the degree of conversion from monomer to polymer at maximum rate also declines markedly for both alkylated caprolactams and alkylated enantholactams, and that the time of reaching maximum

Card 1/2

L 38634-65
ACCESSION NR: AP5008374

2

reaction rate for these monomers is increased. When phosphoric acid is present with the water the maximal reaction rate is markedly increased, the rate increasing with concentration of acid; the degree of conversion at the maximum rate decreases and does not depend on the acid concentration; and the time for reaching maximum rate is strongly reduced. It was found that the maximal rate depends on the [illegible] of the substituted alkyl in the ring, and that this rate decreases with increase in length of the substituted alkyl. Methyl substitution in caprolactams lowers the thermal effect of polymerization. Ethyl substitution increases the effect, and propyl substitution does not change it. Orig. art. has: 3 figures and 3 tables.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University); Institut organicheskoy khimii im. Zelinskogo, AN SSSR (Institute of Organic Chemistry, AN SSSR)

SUBMITTED: 30May64 ENCL: 00 SUB CODE: OC, MT

NO REF SOV: 007 OTHER: 011

Card 2/2

FABRICHNYY, B.P.; SHALAVINA, I.F.; GOL'DFARB, Ya.L.

New synthesis of 2,3,4,5-tetrahydrobiotin. Dokl. AN SSSR 162 no.1: 120-123 My '65. (MIRA 18:5)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
Submitted November 4, 1964.

GOL'DFARB, Ya.L.; FABRICHNYY, B.P.; ROGOVIK, V.I.

Syntheses and some transformations of methoxymethylthiophenes. Izv. AN SSSR. Ser. khim. no.3:515-520 '65. (MIRA 18:5)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.

SALAMATINA, O.B.; BONETSKAYA, A.K.; SKURATOV, S.M.; FABRICHNYY, B.P.; SHALAVINA, I.F.; GOL'DFARD, Ya.L.

Kinetics and the thermal effect of the polymerization of some C-alkyl-substituted lactams. Vysokom. soed. 7 no.3:485-490 Mr '65. (MIRA 18:7)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova i Institut organicheskoy khimii imeni Zelinskogo AN SSSR.

FABRICHNYY, B.P.; SHALAVINA, I.F.; GOL'DFARB, Ya.L.

Synthesis of aliphatic amino acids from thiophene derivatives. Part 9: Preparation of α-alkyl-ε-caprolactams and α-alkyl-ε-aminocaproic acids. Zhur. org. khim. 1 no.8:1507-1514 Ag '65. (MIRA 18:11)

1. Institut organicheskoy khimii imeni Zelinskogo AN SSSR.

FABRICI, Imrich

A note on F-classes in commutative Hausdorff bicompact semigroups.
Mat fyz cas SAV 11 no.4:282-287 '61.

1. Katedra matematiky, Slovenska vysoka skola technicka, Bratislava, Kollarovo namesti 2.

FABRICI, Imrich

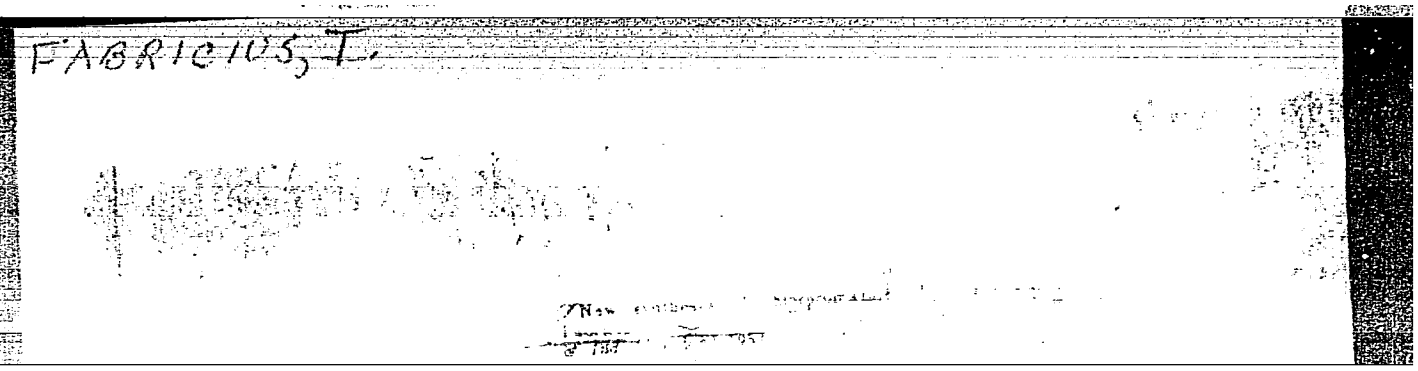
The totally maximal elements in semigroups. Mat fyz SAV 13 no.1:16-19 '63.

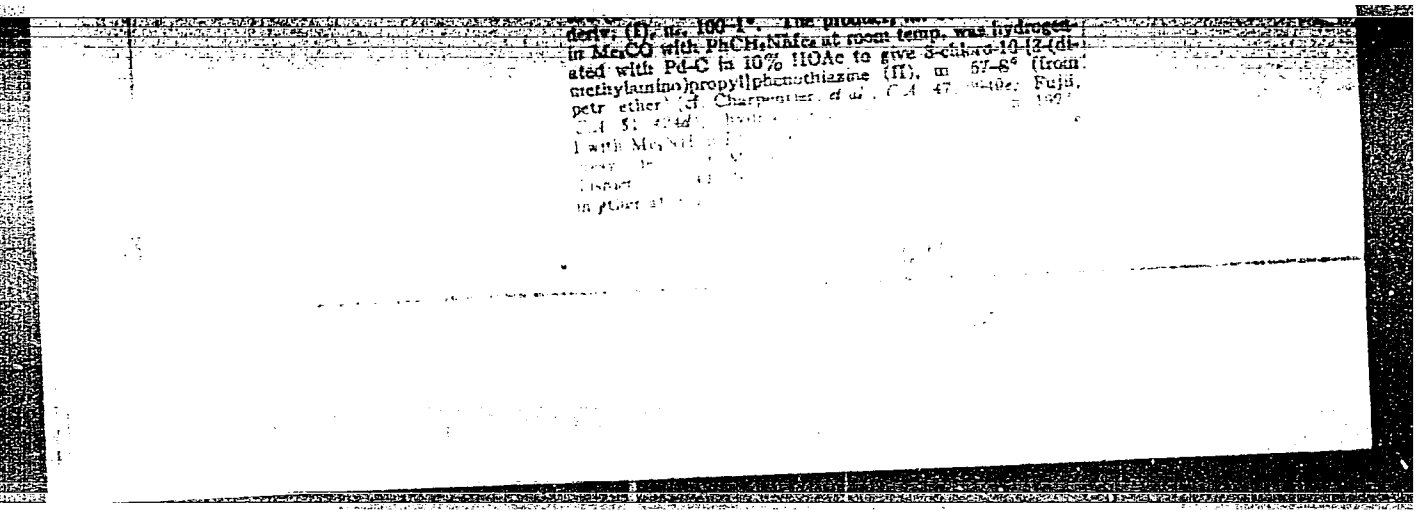
1. Katedra matematiky a deskriptivnej geometrie, Elektrotechnicka fakulta, Slovenska vysoka skola technicka, Bratislava, Gottwaldovo namesti 2.

FABRICIUS, I.

A new synthesis of *N*-isopropylnoradrenaline. D. Beke, G. Kovács, I. Fabricius, and I. Lám (Univ. Szeged, Hung.). *Pharm. Zentralhalle* 92, 237–41(1953); cf. *C.A.* 43, 4240c.—Cryst. guaiacol (62 g.) and 83.7 g. chloral hydrate warmed to 50–60°, the soln. stirred (temp. held at 50–60°) and a catalyst (prepd. from 10 g. $CuCO_3$ and 2.5 g. Na_3PO_4) was added during 16 hrs., the mixt. cooled, the condensation product (a red mass) (Ia) washed by repeated trituration with H_2O, dissolved in 6 l. boiling H_2O with animal C, and the soln. cooled, gave 93.5 g. (60%) pure *1-(3-methoxy-4-hydroxyphenyl)-2,2,2-trichloroethanol* (*3-methoxy-4-hydroxyphenyltrichloromethylcarbinol*) (Ib), white crystals, m. 118° (Pauly and Schanz, *C.A.* 17, 3171). Similar results were obtained using 12 g. K_3PO_4 and 3 g. Na_2CO_3 or 4 g. $(NH_4)_2CO_3$ and 8 g. K_3PO_4 as catalysts; substituting liquid guaiacol for cryst. guaiacol gave 54–58% Ib. Ib (51.3 g.) and 2.5 l. H_2O refluxed 12 hrs., the soln. decolorized with animal C, treated with 26.5 g. Na_2CO_3 (added in small amts.) to neutralize the liberated HCl, then with 55.5 g. $KHSO_3$, let stand 24 hrs., the crystals filtered, washed with small amts. of H_2O, dried at room temp. gave 59 g. (93%) *3-methoxy-4-hydroxyphenylglyoxal potassium bisulfite addn. product* (II). II was also prepd. (without isolation of Ib) as follows: Ia decompd. by boiling 12 hrs. with 7 l. H_2O, the mixt. treated with 223 g. powd. $KHSO_3$, let stand 24 hrs., the yellow crystals filtered, recrystd. from aq. 10% $KHSO_3$ gave 78 g. (52%) II. Moist Raney Ni (70 g.) suspended in 600 cc. 84% EtOH, satd. with H (bath temp. 45°), treated with 60 g. II dissolved in 30 g. iso-$PrNH_2$ and 240 cc. H_2O, followed with 400 cc. EtOH, the mixt. hydrogenated, the catalyst filtered off, the filtrate treated with 125 g. $H_2C_2O_4$, kept 24 hrs. in the refrigerator, the ppted. product filtered off, dried and powdered gave *3-methoxy-4-hydroxy-ω-isopropylaminoacetophenone oxalate* (III). III (without further purification) triturated with 92 cc. 25% alc. HCl, and the product dried at 60° yielded 36.2 g. *crude HCl salt*, which, recrystd. from 250 cc. H_2O gave 31.5 g. (61%) pure *3-methoxy-4-hydroxy-ω-isopropylaminoacetophenone-HCl* (IV), decompg. 236°. IV (25 g.) reduced catalytically with 4 g. Pd-C (14% Pd) in 250 cc. 96% EtOH at room temp. and atm. pressure, the catalyst filtered, the filtrate evapd. to dryness gave an oil, let stand 1 day, formed a cryst. *product*, which, recrystd. from EtOH-Et_2O, yielded 22.8 g. (86%) *1-(3-methoxy-4-hydroxyphenyl)-3-isopropylamino-1-ethanol-HCl* (V), m. 152°. IV (6.5 g.) stirred with 40 cc. concd. HCl, the mixt. then heated 6 hrs. at 140° in a bomb tube, the crude cryst. product filtered, washed with a little ice-cold concd. HCl gave 5.6 g. of a *gray product* (demethylation was complete if the product dissolved readily in 6 parts H_2O; undissolved material was unreacted IV), which, dissolved in water, the mixt. decolorized, filtered, the filtrate treated with 2 parts concd. HCl gave 4.8 g. (73%) *3,4-dihydroxy-ω-isopropylaminoacetophenone-HCl* (VI), m. 255–7° [Corrigan, *et al.* (*C.A.* 43, 3388*d*), reported VI m. 239–42° (decompn.)]. VI dissolved in a small amt. H_2O, and the soln. treated with NH_4 while cooling gave *3,4-dihydroxy-ω-isopropylaminoacetophenone*, m. 96°, yellow needles, sensitive to light. Catalytic reduction of VI in aq. medium with Pd-C by method of Corrigan, *et al.* (*loc. cit.*), yielded 76% *1-(3,4-dihydroxyphenyl)-2-isopropylamino-1-ethanol-HCl*, m. 170–1°.

Nathan Levin





Country : Hungary G-2

Category : Organic Chemistry. Synthetic Organic Chemistry.

Abs. Jour. : Ref. Zhur.-Khimiya No. 6, 1959 19502

Author : Toldy, L.; Fabricius, I.
Institut. : Hungarian Academy of Sciences
Title : New Syntheses of Chlorpromazine.

Orig. Pub. : Acta chim. Acad. scient. hung., 1958, 14, No 1-2, 203-209

Abstract : See RZhKhim, 1957, 77140; 1958, 64517.

Card: 1/1

FABRIK M. 181T96

USSR/Radio - Phonographs Apr 51

"Radio-Phonograph With Push-Button Tuning," Yu. Figurovskiy, M. Fabrik

"Radio" No 4, pp 22-25

Model 1 has long- and medium-wave bands and 4-station push-button tuning. Also has one button for phonograph operation. Special feature is use of cathode detector, which increases selectivity as compared with grid detector with some sacrifice in gain. Parameters of radio-phonograph are: Output power, 10 w; harmonic factor, 8%; frequency response, 50-6,000 cps; power drawn from line, 70 w; sensitivity, 100 mv; and selectivity for 25 kc detuning, 30 db.

181T96

USSR/ Electronics - Tape recorders

Card 1/1 : Pub. 89 - 22/26

Authors : Kozyrev, A., and Fabrik, M.

Title : Triple-motor tape-roller mechanism

Periodical : Radio 12, 46-50, Dec 1954

Abstract : A simple-type triple-motor magnetic tape roller mechanism is described. The cassetes hold a 700 meter tape that can be used for 30 minutes soundscribing at a speed of 385 mm/sec, or 15 minutes at a speed of 770 mm/sec. The mechanism can be fed from a 110, 127 or 220 volt line. A selsyn generator syster, designed for a 50-cycle network, can also be used as a driving mechanism instead of the motor. Electric brakes are provided instead of the conventional tape brakes. A general layout of the mechanism, the arrangement of parts and detailed shop drawings are presented. The principles of adjusting the mechanism, reversing its motion, braking and instantaneous stopping, by means of selecting the optimum voltages are discussed. Diagrams; drawings; circuit diagram.

Institution : .....

Submitted : .....

KOZYREV, Anatolii Vladimirovich; FABRIK, Mark Abramovich; KANEVSKAYA, M.D., redaktory; TROITSKIY, L.V., redaktor; ANDRIANOV, B.I., tekhnicheskiy redaktor

[Design of amateur magnetic recorders] Konstruirovanie liubitel'skikh magnitofonov. Moskva, Izd-vo DOSAAF, 1956. 175 p. (MLRA 9:9)
(Magnetic recorders and recording)

FABRIK, M.

USSR/Electronics - Sound recording

Card 1/1 Pub. 89 - 17/33

Authors : Kozyrev, A., and Fabrik, M.

Title : Magnetic tape recorder with amplifier operating on transistors

Periodical : Radio 2, 37-39, Feb 56

Abstract : A technical description is given for a magnetic tape recorder of small dimensions, fed from a battery with its ribbon mechanism driven by a spring motor, and intended for taking dictation when traveling. For such an instrument it is found feasible to use junction transistors in the amplifier instead of electron tubes. The technical details of this amplifier including a statement of the parts involved and its construction are given along with directions for its adjustment. Illustration; block diagram.

Institution : .....

Submitted : .....

Subject : USSR/Radio AID P - 4395

Card 1/1 Pub. 89 - 4/11

Authors : Kozyrev, A. and M. Fabrik

Title : Magnetophone with triode-transistor amplifier

Periodical : Radio, 3, 30-39, Mr 1956

Abstract : The operation of the tape, its mounting and design details are described. Nine diagrams present a very detailed picture of the entire operation.

Institution : None

Submitted : No date

AID P - 4929

Subject : USSR/Electronics

Card 1/1 . Pub. 89 - 13/17

Authors : Kozyrev, A., and M. Fabrik

Title : Amateur magnetic recorder

Periodical : Radio, 7, 45-48, Jl 1956

Abstract : The authors describe the procedure in producing a magnetic recorder by the means available to an average radio amateur. The type described corresponds to the "Dnepr-3" and "Dnepr-5" types. It permits recording a band of frequencies from 100 to 7000 cycles with a recording speed of 381 mm/sec. This speed, may be reduced at will, to 190.5 mm/sec. The first part of the article gives a detailed description of the driving mechanism. Six detailed drawings.

Institution : None

Submitted : No date

AID P - 4943

Subject : USSR/Electronics

Card 1/1 Pub. 89 - 10/18

Authors : Kozyrev, A. and M. Fabrik

Title : Amateur magnetic recorder

Periodical : Radio, 8, 34-36, Ag 1956

Abstract : This is the second and final part of an article by the same authors (this journal, #7, 1956). It deals with the electrical parts of the magnetic recorder, which are aslo presented in a detailed connection diagram. Two tables of specifications, 1 drawing of the assembled recorder.

Institution : None

Submitted : No date

AID P - 5022

Subject : USSR/Electronics

Card 1/1 Pub. 89 - 7/14

Authors : Fabrik, M. and Yu. Osipenkov

Title : Automobile radio receiver

Periodical : Radio, #9, 34-38, S 1956

Abstract : The authors describe in detail an experimental model of an automobile radio receiver. It is equipped with only one vacuum tube and with nine triode transistors of the PIZH and P3A types. The detector is equipped with a diode transistor of the DG-Ts8 type. One connection diagram, 2 drawings of assembled details.

Institution : None

Submitted : No date

ACC NR: AT7000712 SOURCE CODE: UR/0000/66/000/000/0045/0050

AUTHOR: Kozhevnikov, S. N. (Corresponding member AN UkrSSR); Prazdnikov, A. V. (Candidate of technical sciences); Ioffe, A. M. (Candidate of technical sciences); Fabrika, L. P. (Engineer)

ORG: None

TITLE: Use of electronic simulation for studying the hydropneumatic system of the feed mechanism on a pilger mill

SOURCE: Ukraine. Ministerstvo vysshego i srednego spetsial'nogo obrazovaniya. Gidroprivod i gidropnevmoavtomatika (Hydraulic drive and hydropneumatic automation), no. 2, Kiev, Izd-vo Tekhnika, 1966, 45-50

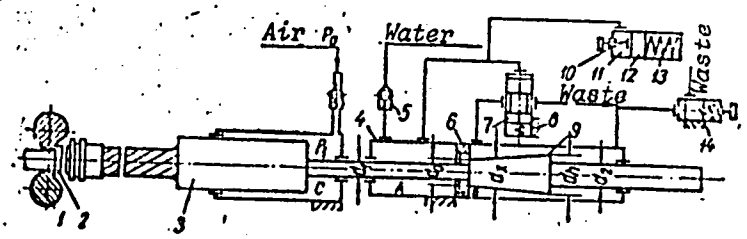
TOPIC TAGS: rolling mill, pneumatic servomechanism, hydraulic device, computer application, analog computer

ABSTRACT: Electric simulation is used for studying the operation of the feed mechanism on a pilger mill. This method consists of using an analog computer for solving the equation of motion of the moving masses in the mechanism. Shown in the figure is a feed mechanism for production of seamless tubes 219-325 mm in diameter. The unit contains a hydraulic brake consisting of housing 4 with diaphragm 6. Inside the housing is tapered plunger 9 with a rod rigidly connected to plunger 3. The entire braking system is filled with water which is fed in at a pressure of $58.9 \cdot 10^4$ N/m^2.

Card 1/3

ACC NR: AT7000712

Rolls 1 move sleeve with mandrel 2 as well as plungers 9 and 3 from the extreme left-hand position toward the right. During this process, water from the main line flows through check valve 5 into cavities A and B. After completion of rolling, the moving masses are braked by compressed air in chamber C and begin to move toward the left. On the return path, water from cavity B flows freely through valve 7 into the waste line until the end of the tapered plunger covers the diaphragm. At this point, the fluid pressure in chamber A rises and valve 7 cuts off the waste line. This begins braking of the moving masses. The fluid in chamber A is forced through the annulus between the tapered plunger and the diaphragm into chamber B and through pressure valve 14 into the waste line. Valve 14 is used for regulating braking conditions. The length of the braking path is adjusted by using screw 10 for setting piston 12 in measuring unit 11. When plunger 9 enters diaphragm 6, piston 12 is moved by fluid pressure to the extreme right-hand position. This action delivers a fixed quantity of fluid to



Card 2/3

ACC NR: AT7000712

the cylinder of measuring unit 11 without resistance, so that there is no braking force on a given section of the braking path. When piston 12 stops in the extreme right-hand position, braking force develops in the hydraulic braking system. After completion of braking at the beginning of the rolling process, spring 13 returns piston 12 to the original position while spring 8 returns slide valve 7 to the neutral position. Electronic simulation was used for studying motion of the masses in this mechanism as a function of their magnitude, the working capacity of the feed mechanism was determined and operation of the hydraulic brake was checked with variations in parameters. The program included simulation of both the acceleration and braking of the moving masses. The resultant data show that an increase in air pressure considerably reduces the operating cycle of the mechanism accompanied by a sharp increase in deceleration of the moving masses past the permissible value. An increase in the gap between the tapered plunger and the diaphragm to more than 0.4 mm results in an excessive final velocity of the moving masses during braking. Repair measures are called for when the clearance reaches this limiting value. The given data agree with those of dynamic computation. Orig. art. has: 5 figures.

SUB CODE: 13/ SUBM DATE: 29Jun66

Card 3/3

Bulgaria/Organic Chemistry - Synthetic Organic Chemistry, E-2

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 61532

Abstract: 8.5 g $NaHCO_3$ and hydrolysis of the formed N-2-(5-brom)-furfuryl-N-acetylsulfonylamide, yield 65%, MP 135-136° (from alcohol), with 14% solution NaOH. Attempts to prepare homosulfanilamides from N-acetylhomosulfanil-chloride and furfurylamine or I, were unsuccessful. On interaction of α-bromomethyl-furan with acetyl derivative of homosulfanilamide (III) a substance was obtained which does not melt at 250° and having the composition corresponding to difurfurylated derivative of III.

Card 2/2

FABRIKANT, A.

Nitrofuran derivatives. II. New nitrofuran sulfanilamides and homosulfanilamides. A. Fabrikant. *Compt. rend. acad. bulgare sci.* 11, 399–402(1958)(in French).—Heating 1.03 g. 5-nitrofurfuryl bromide with 0.93 g. K phthalimide in 30 ml. xylene at 130–40° 12 hrs. gives a ppt., extd. with EtOH to give 0.98 g. *N*-(5-nitrofurfuryl)-phthalimide (I), m. 212–14°. I (2.72 g.) heated 12 hrs. at 140–50° with a slight excess of concd. HCl, filtered, and the mother liquors evapd. gives 1.58 g. 5-nitrofurfurylamine-HCl (II). Treatment of 1.79 g. II with aq. NaOH and Et_2O extn. gives 0.64 g. 5-nitrofurfurylamine, b_{16} 128°. Heating 1.79 g. II with 2.34 g. acetylsulfanilyl chloride and 3.36 g. $NaHCO_3$ 2–3 hrs. in Me_2CO gives 2.48 g. N^1-(5-nitro-2-furfuryl)-N^4-acetylsulfanilamide (III), m. 164–5° (EtOH). III is sapond. with 20% HCl to 67% N^1-(5-nitro-2-furfuryl)-sulfanilamide, m. 178–80° (H_2O). N^1-(5-Nitro-2-furfuryl)-N^4-acetylhomosulfanilamide and N^1-(5-nitro-2-furfuryl)-homosulfanilamide are similarly prepd. O. H. Wheeler—

2
2 May
4E 2c-gj
4E 3d

BULGARIA/Organic Chemistry. Synthetic Organic Chemistry. G

Abs Jour: Ref Zhur-Khim., No 2, 1959, 4685.

Author : Fabrikant. A.
Inst :
Title : Nitrofuran Derivatives. 5-nitrofurfuryl Ethers.

Orig Pub: Khimiya i Industriya (Bulgaria), 30, No 2, 40-42 (1958) (in Bulgarian).

Abstract: 5-nitrofurfuryl alcohol (I), bp 160 /9 mm, has been prepared by the acid hydrolysis of 5-nitrofurfuryl acetate; I is converted in ether solution by treatment with PBr_3 (30 min, 26°) to 5-nitrofurfuryl bromide, yield 65%, mp 46-47° (from petroleum ether). The latter product is converted to ethers of various types by treatment with the Na alcoholates of the corresponding alcohols in

Card : 1/2

FABRIKANT, A.

"News in the field of flotation reagents; review of the publications during the last eleven years, 1946-1957 inclusive"

Khimiia i industriia. Sofiia, Bulgaria. Vol. 30, no. 3, 1958

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 59, Unclas

BULGARIA / Chemical Technology. Chemical Products and Their Application. Fats and Oils. Waxes. Soapsand Detergents. Flotation Agents. H

Abs Jour: Ref Zhur-Khimiya, No 12, 1959, 43858.

Author : Fabricant A.
Inst : Not given.
Title : News in Photoreagents (Review of Literature for the 1946-1957 Period).

Orig Pub: Khimiya i Industriya (Bulg.), 1958, 30, No 4, 112-116.

Abstract: Bibliography of 53 titles. No abstract.

Card 1/1

FABRIKANT, A.

A source for effective flotation reagents. p. 173.

GODISHNIK. Minno-geolozhki institut. Sofiia, Bulgaria. Vol. 5, No. 1, 1957/58 (published 1959).

Monthly List of East European Accessions (EEAI) LC, Vol. 9, No. 2, Feb. 1960.
UNCL

FABRIKANT, A.

Flotation properties of some thionaphtols. p. 179.

GODISHNIK. Minno-geoloshki institut. Sofiia, Bulgaria. Vol. 5, No. 1, 1957/58 (published 1959).

Monthly List of East European Accessions (EEAI) LC, Vol. 9, No. 2, Feb. 1960
UNCL

S/081/62/000/023/044/120
B166/B101

AUTHORS: Fabrikant, A., Khadzhiyev, P.

TITLE: Intensification of thickening processes in ore dressing works made possible by the use of flocculants

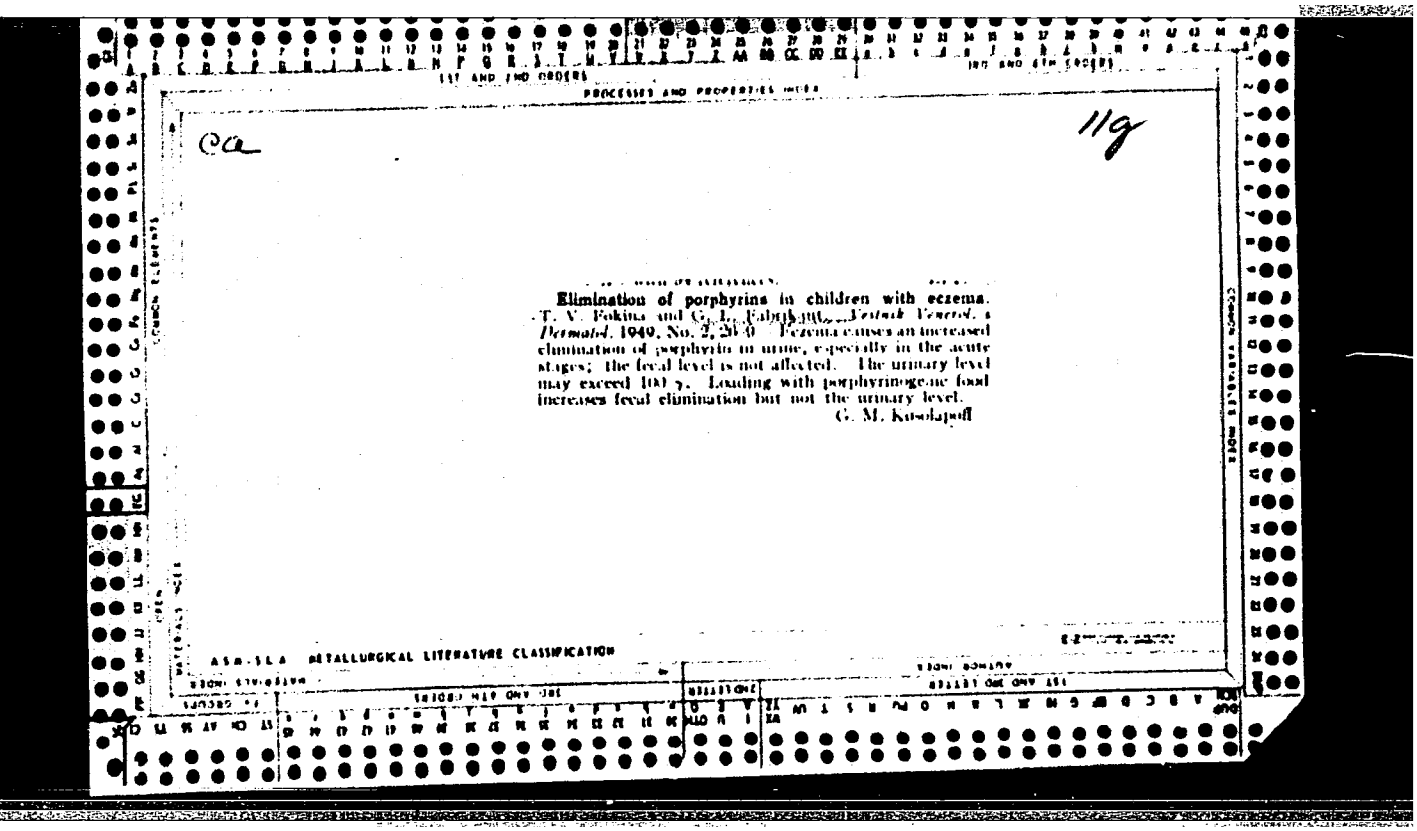
PERIODICAL: Referativnyy zhurnal. Khimiya, no. 23, 1962, 387, abstract 23I70 (Minno delo i metalurgiya, v. 17, no. 4, 1962, 25-27 [Bulg.; summaries in Russ. and Ger.])

TEXT: The results of laboratory and pilot-plant tests on thickening processes are given. АМФ (AMF) flocculants are recommended for use in Bulgarian ore dressing works. [Abstracter's note: Complete translation.]

Card 1/1

FABRIKANT, A.; KAMENOV, I1.

Preparation of flotation reagents by pyrolyzing vulcanized caoutchouc waste. Pt. 1. Khim i industriia 36 no.4:136-138 '64.



Elimination of porphyrins in children with eczema. T. V. Fokina and G. L. Fabrikant. *Vestnik Venerol. i Dermatol.* 1949, No. 2, 28-9. Eczema causes an increased elimination of porphyrin in urine, especially in the acute stages; the fecal level is not affected. The urinary level may exceed 100 γ. Loading with porphyrinogenic food increases fecal elimination but not the urinary level.

G. M. Kosolapoff

FABRIKANT, G.L.

RAYTS, M.M.; FABRIKANT, G.L.; LIBERMAN, I.

Penicillin in the treatment of syphilis in children. Pediatriia, Moskva No.1:35-40 Jan-Feb 51. (CLML 20:6)

1. Prof.M.M.Rayts; Candidates Medical Sciences G.L.Fabrikant and I.S.Liberman. 2. Of the Syphilological Clinic of the Institute of Pediatrics of the Academy of Medical Sciences USSR (Head of Clinic-Prof.M.M.Rayts; Director of Institute--Honored Worker in Science Prof.G.N.Speranskiy, Active Member of the Academy of Medical Sciences USSR.

FABRIKANT, G. L.

USSR. "Physiology" Anatomical and Physiological pecularities of the child., I. M. OSTROVSKAYA. Reviewed by G. L. FABRIKANT., MED. sestra., 11, 1951

Monthly List of Russian Accessions, Library of Congress, March 1952, Uncl.

FABRIKANT, G.L.

FABRIKANT, G.L., kandidat meditsinskiy nauk; REZNKOVA, L.S., kandidat meditsinskikh nauk

Dynamics of titer changes in the Wassermann reaction in various methods of syphilis therapy in children. Vest. ven. i derm. no.1: 30-34 Ja-F '55. (MLRA 8:4)

1. Iz sifilidologicheskoy kliniki (zav.-prof. M.M.Rayts) Instituta pediatrii AMN (dir.-deystv. chlen. AMN, zasluzhennyy deyatel' nauki prof. G.N.Speranskiy) i serologicheskoy laboratorii (zav.-prof. N.M.Ovchinnikov) TSentral'nogo kozno-venerologicheskogo inst. (dir.-kand. med. nauk N.M.Turanov)

(SYPHILIS, in infant and child
ther., titer of Wassermann reaction, changes in various ther. methods)
(WASSERMANN REACTION
titer changes in various methods of syphilis ther. in children)

FABRIKANT, G.L., kandidat meditsinskikh nauk (Moskva)

Physiological peculiarities of adolescents. Fel'd. i akush. 21 no.4:8-15 Ap '56. (MLRA 9:8)
(ADOLESCENCE)

FABRIKANT, O.L., kandidat meditsinskikh nauk

Present-day methods of treating syphilis in children. Fel'd. i akush. 21 no.12:12-18 D '56. (MLRA 10:1)
(SYPHILIS, CONGENITAL, HEREDITARY AND INFANTILE)

FABRIKANT, G.L., kand.med.nauk (Moskva)

Pneumonia in infants. Fel'd. i akush 22 no.9:28-36 '57 (MIRA 11:10)
(PNEUMONIA)

FABRIKANT, G.L., kand.med.nauk (Moskva)

Prevention and treatment of purulent skin diseases in children. Med. sestra 17 no.3:13-19 Mr '58. (MIRA 11:4)
(SKIN--DISEASES) (CHILDREN--CARE AND HYGIENE)

FABRIKANT, G.L., kand.med.nauk (Moscow)

Preventive inoculations for children. Fel'd i akush. 23 no.5:21-30 My '58 (MIRA 11:6)

(VACCINATION)
(CHILDREN--DISEASES)

FABRIKANT, G.L.

Influenza in children. Fel'd. i akush. 23 no.12:15-22 D'58 (MIRA 11:12)
(INFLUENZA)

FABRIKANT, G.L., kand.med.nauk (Moskva)

Colienteritis in children. Fel'd. i akush. 24 no.6:21-28 Je '59. (MIRA 12:8)

(INTESTINES--DISEASES)

FABRIKANT, G.L., kand.med.nauk (Moskva)

Urticaria in children. Fel'd. i akush. 25 no.3:10-15 Mr '60. (MIRA 13:6)

(URTICARIA)

FABRIKANT, G.L., kand.med.nauk (Moskva)

Rheumatic fever in children. Fel'd. i akush. 25 no.4:35-39 Ap '60. (MIRA 14:5)

(RHEUMATIC FEVER)

YERENKOV, V.A., kand.med.nauk (Lugansk); CHERVONNYY, G.D., prepodavatel' infektsionnykh bolezney; FABRIKANT, G.L., kand.med.nauk, prepodavatel' kursa detskikh bolezney

Instruction on children's infectious diseases in medical schools. Fel'd. i akush. 26 no.5:51-58 My '61. (MIRA 14:5)

1. Meditsinskoye uchilishche, Magnitogorsk (for Chervonnyy).
2. Meditsinskoye uchilishche No.2, Moskva (for Fabrikant).
(PEDIATRICS--STUDY AND TEACHING)

FABRIKANT, G.L. (Moskva)

Treatment and prevention of rheumatic fever in children. Fel'd. i akush. 25 no.5:10-17 My '60. (MIRA 13:7)
(RHEUMATIC FEVER)

FABRIKANT, G.L., kand.med.nauk (Moskva)

Pyloric stenosis and pyloric spasm in children. Fel'd. i akush. 26 no.4:16-19 Ap '61. (MIRA 14:3)
(PYLORIC SPASMS) (PYLORIC STENOSIS)

FABRIKANT, G.L., kand.med.nauk (Moskva)

"The healthy and sick child" by A.I. Dobrokhotova and I.M. Ostrovskaia. Reviewed by G.L. Fabrikant. Fel'd. i akush. 27 no.4:60-64 Ap '62. (MIRA 15:6)
(CHILDREN—DISEASES)
(DOBROKHOTOVA, A.I.) (OSTROVSKAIA, I.M.)

FABRIKANT, G. L., kand. med. nauk (Moskva)

Pyuria in children. Fel'd. i akush. 27 no.6:23-27 Je '62.
(MIRA 15:7)

(URINE--ANALYSIS AND PATHOLOGY)

SHEYNKER, S.; FABRIKANT, L.

What construction of the Ul'yanovsk Cement Plant teaches. Na stroi. Ros. 3 no.2:4-6 F '63. (MIRA 16:2)

1. Zamestitel'nachal'nika otdela stroitel'nykh materialov i sbornogo zhelezobetona Gosstroya RSFSR (for Sheynker). 2. Upravlyayushchiy tresta TSemstroy Ul'yanovskogo soveta narodnogo khozyaystva (for Fabrikant).

(Ul'yanovsk—Cement plants)

ZOTINA, R.S.; KIREYEVA, A.Ya.; FABRIKANT, L.D.; STAVSKIY, A.T., red.; KAPRALOVA, A.A., tekhn. red.

[Collection of problems in mathematical statistics and probability theory]Sbornik zadach po matematicheskoi statistike i teorii veroiatnostei. Moskva, Gosstatizdat, 1962. 183 p. (MIRA 16:2)

(Mathematical statistics) (Probabilities)

YELENOVICH, A.S.; FABRIKANT, M.A.

New binding material from pyrolytic resins. Avt.dor. 26 no.9: 18-19 S '63. (MIRA 16:10)

FABRIKANT, M. B. (Prof.) Hon Worker of Sci

"Role of Conserved Tissue in Therapy," Khirurgiya, No.10, pp. 18-21, 1947

Translation W-18831, 19 Jul 1951

FABRIKANT, N. B.

176177

USSR/Medicine - Tissue Therapy Mar 50

"Investigations on the Biological Activity of Dried Tissues," Prof M. B. Fabrikant, Prof N. S. Kharchenko, Khar'kov Med Inst, Khar'kov Stomatol Inst, and Khar'kov Republic Jaw and Face Hosp

"Sov Med" No 3, pp 20-22

Describes method of preparing dried placenta tissue therapy, implantation technique, and effects of its use in cases of various diseases in ophthalmol, urol, and dermatol practice. Also discusses prepn of dried skin and bone tissue and effects of its use. Dir, Khar'kov Med Inst, R. I.

176177

USSR/Medicine - Tissue Therapy (Contd) Mar 50

Sherlaya; Dir, Khar'kov Stomatol Inst, Prof P. V. Vlasenko; Chief, Khar'kov Republic Jaw and Face Hosp, N. M. Svet.

176177

FABRIKANT, N.A.

Aerondinamika. Chast'I. Moskva, Gostekhizdat, 1949. 624 p., diagrs.

Title tr.: Aerodynamics. Part I.

QA930.F2

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955

FABRIKANT, N. YA.

1(2) P.Y PHASE I BOOK EXPLOITATION SOV/3265

Moscow. Aviatsionnyy tekhnologicheskiy institut

Nekotoryye voprosy aerodinamiki i dinamiki samoleta (Some Problems in Aerodynamics and Dynamics of Aircraft) Moscow, Oborongiz, 1959. 11 p. (Its: Trudy, vyp. 42) 2,100 copies printed.

Additional Sponsoring Agency: RSFSR. Ministerstvo vysshego i srednego spetsial'nogo obrazovaniya.

Ed.: (Title Page): S.I. Zonshayn, Doctor of Technical Sciences, Professor; Managing Ed.: A.S. Zaymovskaya, Engineer.; Ed. of Publishing House: S.I. Vinogradskaya. Tech. Ed.: V.P. Rozhin.

PURPOSE: This collection of articles is intended for the engineering and technical personnel of design offices and scientific-research organizations. It may also be used by students of aeronautical vuzes, specializing in the field of aircraft construction.

COVERAGE: This collection of articles contains some results of scientific research performed by the Aerodynamics and Design of Aircraft Department of MATI

Card 1/6

(Moscow Aviation Technology Institute) during the period 1955 - 1957. The collection considers a number of problems in wing theory for three-dimensional flow and in the dynamics of aircraft, and also methods for research conducted at the initial stages of design and configuration of aircraft. A report by V.T. Dubasov presents a variational method for approximate determination of the velocity field for potential unsteady, compressible and incompressible air flow about bodies. S.I. Zonshayn considers the methods of research performed to determine rational dimensions of aircraft during the initial design stages. The problem is solved in a general formulation, but the obtained results are applied to particular problems, for instance, to the calculation of optimum wing loads. In a report by N.Ya. Fabrikant, the theorem regarding the lifting force of a wing, given by N.Ye. Zhukovskiy, is generalized for the case of a rotational three-dimensional flow and a compressible medium. A formula is given for calculating force arising from the mutual interaction of two flows. The results obtained are used for calculating the effect of the accompanying jet on the lift coefficient of the wing and for calculating the load distribution along the span in the region bordering on the wing tip. A report by S.M. Matveyev deals with one of the important problems in aircraft dynamics - the loop - first investigated by N.Ye. Zhukovskiy. The problem is solved for the mathematically simplest case, namely a loop with uniform turning of the flight path. The kinematic and dynamic analysis

AVAILABLE: Library of Congress

AC/gmp
4-1-60

Card 6/6

NEKRASOV, Boris Borisovich; BURAGO, G.F., prof., doktor tekhn.nauk; KOSOUROV, K.F., prof., retsenzent; FABRIKANT, N.Ya., retsenzent; RUDNEV, S.S., retsenzent; SHIL'TSEV, A.N., red.; STREL'NIKOVA, M.A., tekhn.red.

[Hydraulics] Gidravlika. Moskva, Voen.izd-vo M-va obor.SSSR, 1960. 260 p. (MIRA 13:5)
(Hydraulics)

PIRUMOV, A.I., kand. tekhn. nauk; FABRIKANT, N.Ye., prof., red.; PORTNOVA, Z.S., red. izd-va; BOROVNEV, N.K., tekhn. red.

[Aerodynamic principles of inertia separation] Aerodinamicheskie osnovy inertsionnoi separatsii. Pod red. N.IA.Fabrikanta. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1961. 123 p. (MIRA 15:1)
(Dust--Removal) (Separators (Machines))

FABRIKANT, Nikolay Yakovlevich; DUBASOV, V.T., red.

[Aerodynamics; general course] Aerodinamika; obshchii kurs. Moskva, Nauka, 1964. 814 p. (MIRA 17:10)

L 38180-66 EWP(m)/EWT(1)

ACC NR: AP6011782 SOURCE CODE: UR/0147/66/000/001/0028/0037

AUTHOR: Fabrikant, N. Ya.

43
B

ORG: none

TITLE: Velocity distribution in a turbulent flow close to a solid surface

SOURCE: IVUZ. Aviatsionnaya tekhnika, no. 1, 1966, 28-37

TOPIC TAGS: flow velocity, turbulent flow, surface property

ABSTRACT: The author considers the relationship between average velocities and tangential stresses as the basis for calculating a velocity field in a turbulent flow. Motion transfer theory is utilized as the point of departure for this study. In accordance with this theory, the averaged tangential stress resulting from turbulent mixing and involving a case of flow parallel to the x-axis is determined by a standard equation. The distance of intermixing can be determined both experimentally and theoretically. Experimentally it is determined by measuring the velocities and tangential stresses in turbulent flow. Theoretically, the distance is determined on the basis of an accepted turbulent flow model. The study is in agreement with the data in the literature on the vortex nature of turbulent mixing. This phenomenon is a direct result of the rotation of isolated fluid bodies under the effect of a transverse force. The transverse motion of the fluid bodies and their rotation is retarded by the ambient

Card 1/2 UDC: 532.517.4

fluid. It is because of this phenomenon that the distance traveled by these bodies is limited in a direction perpendicular to the flow. The calculated distance of intermixing based on this method is determined for the case when v_x is independent of x. The distance of intermixing obtained by the above method is very close to the experimentally determined distance. This is not true of the distance calculated according to the standard formulas in the literature. Turbulent flow over an infinite surface is considered. At a distance from the surface where the effect of viscosity is imperceptible, the average velocity is assumed to be distributed according to a parabolic law. This law does not satisfy the boundary conditions at the wall. The article also deals with an approximate method of computing velocities in the general case of turbulent flow in the vicinity of a solid surface. Orig. art. has: 6 figures, 17 formulas.

SUB CODE: 20/ SUBM DATE: 26Jul65/ ORIG REF: 001/ OTH REF: 005

FABRIKANT, S. B.

USSR/General Problems of Pathology - Shock. T-3

Abs Jour : Ref Zhur - Biol., No 1, 1958, 3028

Author : Fabrikant, S.B.
Inst : -
Title : On the Significance of Individual Reactivity of the Body in the Formation of Thermal Shock.

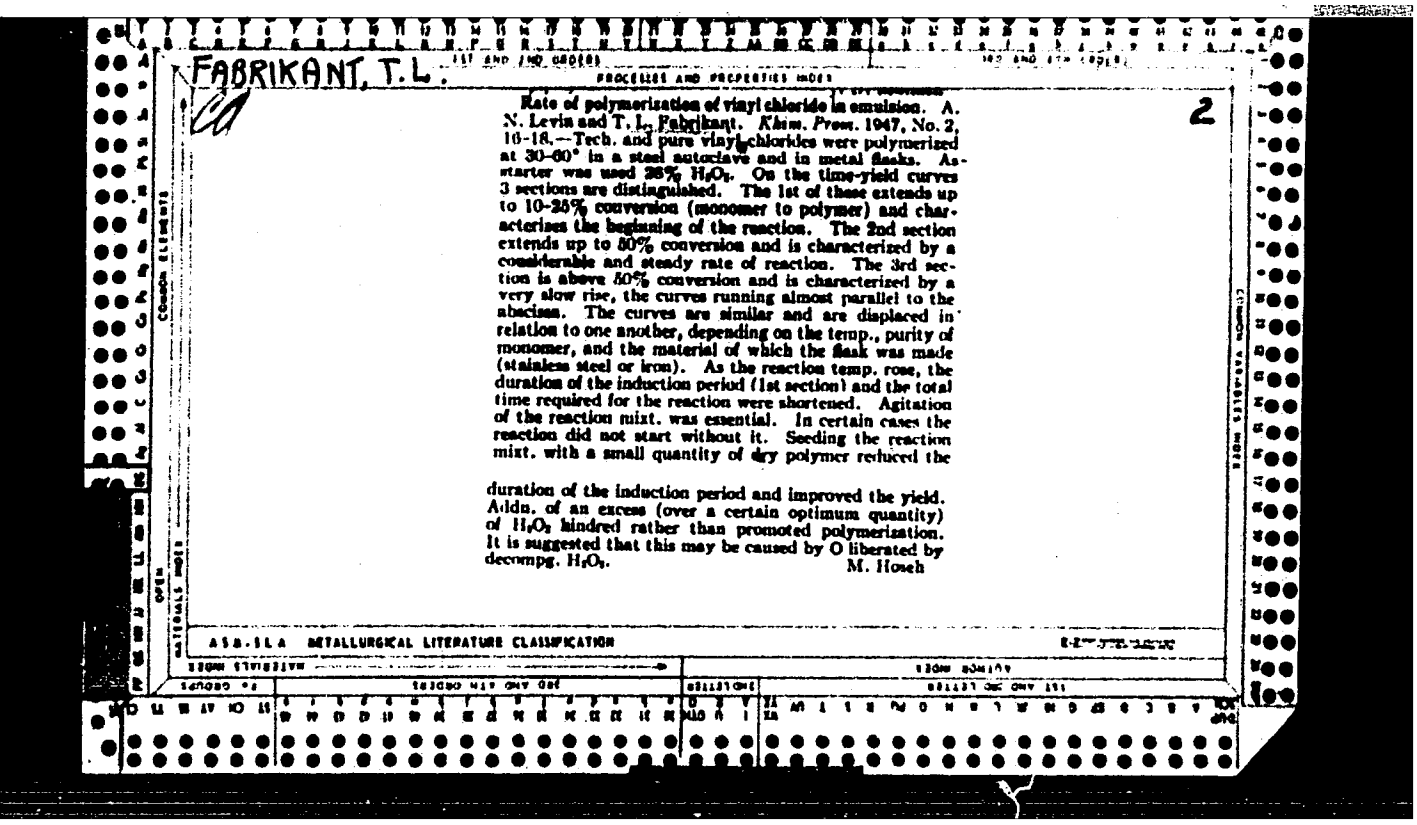
Orig Pub : Tr. Kirg. gos. med. in-ta, 1956, 8, 155-163

Abstract : A burn of 33-35% of the surface area was caused by a stream of scalding water. The course of the shock accompanying skin involvements of such intensity was characterized by individual variations in arterial pressure, hemoconcentration and survival. Anesthesia (2 ml/kg of a 50% solution of urethan) shortened the original blood pressure drop, prevented hemoconcentration and postponed the animals' death.

Card 1/1

FABRIKANT, S.I., inzh. (Novopolotsk)

Increasing the operational reliability of an automatic switch.
Energetik 13 no.8:20-22 Ag '65. (MIRA 18:9)



FABRIKANT, T. L.

Ed

2

Rate of polymerization of vinyl chloride in emulsion. A. N. Levin and T. L. Fabrikant. *Khim. Prom.* 1947, No. 2, 16-18.—Tech. and pure vinyl chlorides were polymerized at 30–60° in a steel autoclave and in metal flasks. As starter was used 28% H_2O_2. On the time-yield curves 3 sections are distinguished. The 1st of these extends up to 10–20% conversion (monomer to polymer) and characterizes the beginning of the reaction. The 2nd section extends up to 80% conversion and is characterized by a considerable and steady rate of reaction. The 3rd section is above 80% conversion and is characterized by a very slow rise, the curves running almost parallel to the abscissa. The curves are similar and are displaced in relation to one another, depending on the temp., purity of monomer, and the material of which the flask was made (stainless steel or iron). As the reaction temp. rose, the duration of the induction period (1st section) and the total time required for the reaction were shortened. Agitation of the reaction mixt. was essential. In certain cases the reaction did not start without it. Seeding the reaction mixt. with a small quantity of dry polymer reduced the duration of the induction period and improved the yield. Addn. of an excess (over a certain optimum quantity) of H_2O_2 hindred rather than promoted polymerization. It is suggested that this may be caused by O liberated by decompg. H_2O_2.

M. Hoseh

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

LEVIN, A.N., dotsent, kandidat tekhnicheskikh nauk; FABRIKANT, T.L., nauchnyy sotrudnik

Polymerization rate of vinyl chloride in emulsions. Khim.prom. no.2:48-50 F '47. (MLRA 8:12)

1. MIKhM

(Ethylene) (Polymers and polymerization)

FABRIKANT, T. L.

Fabrikant, T. L.

"The development of a process for obtaining certain copolymers of vinyl chloride and acrylonitrie." Min Higher Education USSR. Moscow Inst of Chemical Machine Building. Moscow, 1956. (Dissertation for the Degree of Candidate in Technical Sciences).

Knizhnaya letopis'
No. 21, 1956. Moscow.

FABRIKANT, T.L.

KLINOV, I.Ya., prof.; FABRIKANT, T.L., nauchnyy sotrudnik; MYL'NIKOV, V.P., inzhener.

Use of carbon and graphite materials in the woodpulp and paper industry. Bum.prom.32 no.8:6-8 Ag '57. (MIRA 10:12)

1. Moskovskiy institut khimicheskogo mashinostroyeniya (for Klinov, Fabrikant).
(Graphite) (Woodpulp industry) (Carbon)

5(1,3) PHASE I BOOK EXPLOITATION SOV/3170

Fabrikant, Tamara L'vovna, and Vol'f Leonovich Vol'tman

Asbovinil i yego primeneniye v khimicheskoy promyshlennosti (Asbovinyl and Its Utilization in the Chemical Industry) Moscow, Goskhimizdat, 1958. 78 p. Errata slip inserted. (Series: Korroziya v khimicheskikh proizvodstvakh i sposoby zashchity, vyp. 11) 3,000 copies printed

Ed.: I.Ya. Klinov; Editorial Commission: N.A. Baklanov, V.Ye. Volodin, V.S. Kiselev (Chairman), I.Ya. Klinov, V.I. Kruchinin (Secretary), G.V. Sagalayev (Deputy Chairman), and P.G. Udyma.

PURPOSE: This booklet is intended for workers specializing in corrosion prevention and for design engineers of chemical and related industries

COVERAGE: This booklet deals with the prevention of corrosion and anticorrosive materials. It reviews physicochemical and mechanical properties of asbovinyl which is an anticorrosive mixture, the basic components of which are ethynol (divinyl acetylene), lacquer and asbestos. Methods for preparation of the

Card 1/5

asbovinyl mixture and the utilization of this mixture as a protective material against corrosion are briefly outlined and safety techniques during production are reviewed. Chemical resistance of different types of asbovinyl to corrosive agents is discussed. The experience of the industry in using asbovinyl mixture for the lining of various containers, filters, gas conduits, pipes, etc., is outlined. The procedure for using this mixture as a corrosion resistant material is explained as well as methods of storing, transporting, packing, etc. Studies of A.L. Klenbanskiy, I.M. Dolgopol'skiy and I.P. Shabodalov proved that asbovinyl mixture can be used successfully for protecting equipment of the chemical industry against corrosion. It is now widely used in Soviet industry. There are 16 references: 14 Soviet and 2 English.

TABLE OF CONTENTS:

AVAILABLE: Library of Congress

Card 5/5

TM/
2-17-60

KLINOV, I.Ya.; FABRIKANT, T.L.

Improving the properties of asbestos-vinyl blends by modification.
Trudy MIKHM 22:139-158 '60. (MIRA 14:1)
(Asbestos) (Vinyl polymers)

KLINOV, I.Ya.; KUTSENOK, B.I.; FABRIKANT, T.L.; GIL'MAN, TS.I.

Chemically stable mastics based on a modified asbestos vinyl.
Plast.massy no.2:44-50 '61. (MIRA 14:2)
(Plastics) (Protective coatings)